

PCT

GENERAL POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s) :

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

PURDUE RESEARCH FOUNDATION
3000 Kent Avenue
West Lafayette, IN 47906
US

hereby appoint(s) the following person as:

agent

common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)
ADDISON, Bradford G., Reg. No. 41486; COFFEY, William R., Reg. No. 24023; STEIN, Arland L., Reg. No. 23062; CONARD, Richard D., Reg. No. 27321; KULKARNI, Dilip A., Reg. No. 27510; REZEK, Richard A., Reg. No. 30796; HUNT, Paul B., Reg. No. 37154; MICHAEL, Jeffrey A., Reg. No. 37394; BAUER, Shawn D., Reg. No. 41603; HENDERSON, Ronald S., Reg. No. 43669; SWEENEY II, James R., Reg. No. 45670; BAILEY, Kevin D., Reg. No. 46531; BALL, Rebecca, Reg. No. 46535; STEWART, Carli E., Reg. No. 51058; GEIB, Helen, Reg. No. 50924; MCLAREN, Kevin L., Reg. No. 48351; PALAN, Perry, Reg. No. 26213; NEWMAN, Mark M., Reg. No. 31472; KRINSKY, Richard P., Reg. No. 47720; LAZARUS, Richard B., Reg. No. 48215; GILLENWATER, Bobby B., Reg. No. 31105; COOPER, Gregory S., Reg. No. 40965; DONOVAN, Thomas J., Reg. No. 33231; MARTIN, Alice O., Reg. No. 35601; PETERS, Grant H., Reg. No. 35977; HAMILL, Mark A., Reg. No. 37145; ALLEN, Michael B., Reg. No. 37582; ALBERS, Daniel P., Reg. No. 44008; DEVADAS, Sendil, Reg. No. 52425; SMITH, Thomas E., Reg. No. 18243; MCWILLIAMS, Dennis M., Reg. No. 25195; LEE, William M., Jr., Reg. No. 26935; All Appointed Agents of the Address: BARNES & THORNBURG, 11 South Meridian Street, Indianapolis, IN 46204, US

to represent the undersigned before

all the competent International Authorities

the International Searching Authority only

the International Preliminary Examining Authority only

in connection with any and all international applications filed by the undersigned with the following Office

US

as receiving Office

and to make or receive payments on behalf of the undersigned.

Signature(s) (where there are several persons, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading this power):

By:



Bruce L. PERSHING

Investment Officer and Corporate Secretary

Date:

5/5/04

Day/ Month/ Year

PCT

GENERAL POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s) :

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

THE GOVERNMENT OF THE UNITED STATES OF AMERICA
AS REPRESENTED BY THE SECRETARY OF THE DEPARTMENT OF HEALTH
AND HUMAN SERVICES
C/O NATIONAL INSTITUTE OF HEALTH
6011 Executive Boulevard, Suite 325
Rockville, MD 20852
US

hereby appoint(s) the following person as:

agent

common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

LAMMERT, Steven R.; COFFEY, William R.; HYLAND, Jerry E.; CONARD, Richard D.; REZEK, Richard A.; NIEDNAGEL, Timothy E.; BREEN, John P.; WOODBURN, Jill L.; HARRISON, Nancy, J.; CARTER, R. Trevor; KULKARNI, Dilip A.; BARRY, Michael M.; QUICK, David B.; POWLICK, Jill T.; PALAN, Perry; NEWMAN, Mark M.; GILLENWATER, Bobby B.; HUNT, Paul B.; GZYBOWSKI, Michael S.; GALLAGHER, Gerald T.; NULL, Robert D.; All Appointed Agents of the Address:

BARNES & THORNBURG
11 South Meridian Street
Indianapolis, IN 46204
US

to represent the undersigned before

all the competent International Authorities

the International Searching Authority only

the International Preliminary Examining Authority only

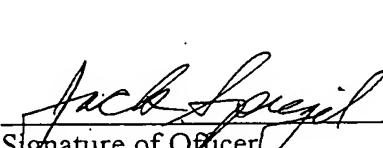
in connection with any and all international applications filed by the undersigned with the following Office

US

as receiving Office

and to make or receive payments on behalf of the undersigned.

Signature(s) (where there are several persons, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading this power):


Signature of Officer

Printed Name:

Jack Spiegel, Ph.D.
Director, Division of Technology
Development and Transfer
Office of Technology Transfer
National Institutes of Health

Date: 22 02 99
Day/ Month/ Year

PCT**GENERAL POWER OF ATTORNEY**

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s):

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

CUSHMAN, Mark S.
 136 Rockland Drive
 West Lafayette, IN 47906
 US

hereby appoint(s) the following person as:

 agent common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)
 ADDISON, Bradford G., Reg. No. 2184; COPPEY, William K., Reg. No. 24023; STEIN, Arnold I., Reg. No. 25052; CONKRA, Richard D., Reg. No. 27321; KULKARNI, Dilip A., Reg. No. 27510; REZEK, Richard A., Reg. No. 30796; HUNT, Paul B., Reg. No. 37154; MICHAEL, Jeffrey A., Reg. No. 37394; BAUER, Shawn D., Reg. No. 41603; HENDGREN, Ronald S., Reg. No. 43669; SWEBNEY II, James R., Reg. No. 45670; BAILEY, Kevin D., Reg. No. 46531; BALL, Rebecca, Reg. No. 46535; STEWART, Cath E., Reg. No. 51058; GEIB, Helen, Reg. No. 50924; MCLAREN, Kevin L., Reg. No. 48351; PALAN, Perry, Reg. No. 26211; NEWMAN, Mark M., Reg. No. 31472; KRINSKY, Richard P., Reg. No. 47720; LAZARLIS, Richard B., Reg. No. 49215; CILLENWATER, Bobby B., Reg. No. 31105; COOPER, Gregory S., Reg. No. 40965; DONOVAN, Thomas J., Reg. No. 33231; MARTIN, Alice O., Reg. No. 35601; PETERS, Grant H., Reg. No. 35977; HAMILL, Mark A., Reg. No. 37143; ALLEN, Michael B., Reg. No. 37582; ALBERS, Daniel P., Reg. No. 44008; DEVADAS, Sendil, Reg. No. 52425; SMITH, Thomas E., Reg. No. 18243; MCWILLIAMS, Dennis M., Reg. No. 25193; LEE, William M., Jr., Reg. No. 26935; All Appointed Agents of the Address: BARNES & THORNBURG 11 South Meridian Street, Indianapolis, IN 46204, US

to represent the undersigned before

all the competent International Authorities
 the International Searching Authority only
 the International Preliminary Examining Authority only

in connection with any and all international applications filed by the undersigned with the following Office

US

and to make or receive payments on behalf of the undersigned as receiving Office

Signature(s) (where there are several persons, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading this power):

Mark Cushman
 Mark S. CUSHMAN

Date: 5/5/04
 Day/ Month/ Year

PCT

GENERAL POWER OF ATTORNEY

(for several international applications filed under the Patent Cooperation Treaty)

(PCT Rule 90.5)

The undersigned person(s):

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

POMMIER, Yves G.
8102 Maple Ridge Road
Bethesda, MD 20814
US

hereby appoints (appoint) the following person as: agent common representative

Name and address

(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)

ADDISON, Bradford G., Reg. No. 41486; COFFEY, William R., Reg. No. 24023; STEIN, Arland T., Reg. No. 25062; CONARD, Richard D., Reg. No. 27321; KULKARNI, Dilip A., Reg. No. 27510; REZEK, Richard A., Reg. No. 30796; HUNT, Paul B., Reg. No. 37154; MICHAEL, Jeffrey A., Reg. No. 37394; BAUER, Shawn D., Reg. No. 41603; HENDERSON, Ronald S., Reg. No. 43669; SWEENEY II, James R., Reg. No. 45670; BAILEY, Kevin D., Reg. No. 46531; BALL, Rebecca, Reg. No. 46535; STEWART, Carli E., Reg. No. 51058; GEIB, Helen, Reg. No. 50924; MCLAREN, Kevin L., Reg. No. 48351; PALAN, Perry, Reg. No. 26213; NEWMAN, Mark M., Reg. No. 31472; KRINSKY, Richard P., Reg. No. 47720; LAZARUS, Richard B., Reg. No. 48215; GILLENWATER, Bobby B., Reg. No. 31105; COOPER, Gregory S., Reg. No. 40965; DONOVAN, Thomas J., Reg. No. 33231; MARTIN, Alice O., Reg. No. 35601; PETERS, Grant H., Reg. No. 35977; HAMILL, Mark A., Reg. No. 37145; ALLEN, Michael B., Reg. No. 37582; ALBERS, Daniel P., Reg. No. 44008; DEVADAS, Sendil, Reg. No. 52425; SMITH, Thomas E., Reg. No. 18243; MCWILLIAMS, Dennis M., Reg. No. 25195; LEE, William M., Jr., Reg. No. 26935; All Appointed Agents of the Address: BARNES & THORNBURG 11 South Meridian Street, Indianapolis, IN 46204, US

to represent the undersigned before

all the competent International Authorities
 the International Searching Authority only
 the International Preliminary Examining Authority only

in connection with any and all international applications filed by the undersigned with the following Office

US

as receiving Office

and to make or receive payments on behalf of the undersigned.

Signatures of the applicant(s) (where there are several persons, each of them must sign; next to each signature, indicate the name of the person signing and the capacity in which the person signs, if such capacity is not obvious from reading this power):

Yves G. POMMIER

Date:

Day/ Month/ Year